

## Stable Craft Brewing at Hermitage Hill

### Achieving Zero Food Waste

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#### Overview

*Central Virginia's Stable Craft Brewing at Hermitage Hill, an independent, destination, sustainable farm brewery and winery, is the first brewery on the East Coast to launch a zero-food waste initiative for its award-winning brewery, restaurant and wedding and banquet facility.*

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#### Stable Craft Brewing's innovative method to achieve Zero Food Waste.

The brewery transformed its entire restaurant, wedding and banquet operation to zero food waste through an innovative onsite bokashi composting program. Bokashi, originating from Asian cultures, uses fermentation to break down all food scraps – including meat, dairy and oils, in less than half the time of conventional composting while avoiding unpleasant odors and deterring pests. The end product is a natural liquid fertilizer that greatly increases the population of beneficial microbes that add valuable nutrients to the compost and helps improve the health of soil and plants. The brewery utilizes the bokashi, compost, and compost tea on their organic herb garden that Executive Chef Stephan Klein incorporates into Stable Craft's agri-pub and special event catering menus. Stable Craft Brewing owner Craig Nargi estimates Stable Craft Brewing's voluntary adoption of the Zero Food Waste initiative would divert more than five and a half tons of food waste from landfills to their organic herb garden.



#### Tell us more about the actual environmental benefits of your innovative zero food waste project.

Stable Craft Brewing's bokashi food waste program allows their agri-brew pub to mix non-traditional food waste (proteins, meat) with traditional composting of vegetable trim and food plate scrapings. Because of the high tempo of their brew pub, an easy to understand and participating process from their customer service forward staff to their chefs and cooks allow for understanding of separation of food from all other recyclable material and typical garbage. The end fibrous materials are composted in with manure and old hay. The bokashi "tea" is used for fertilizer cut with water and also used to digest grease in drains from the kitchen. This "tea" and the bokashi process doesn't put off any offensive odors so it is manageable both for inside spaces or close to their buildings. The brewery has designated special places for ease of





handling, storage of the bokashi recipe for casting on reclaimed food scraps and drawing the tea from the process. The brewery also utilized single use plastic bottles from their kitchen to store this tea.

The “tea” has eliminated the need for the brewery to purchase drain cleaning chemicals and certain plant stimulants for their hop yards and green house. This process fits nicely within Stable Craft’s other green initiatives. They propagate cuttings from their landscaping plants and trees to further increase areas on the farm with vegetation to slow winds, snow and rain water retention and a nine year compost pile used for amending soils.

**What are some of the other sustainable practices you’ve initiated at Stable Craft Brewing that make it a green brewery?**

Stable Craft Brewing grows its own hops, utilizes the brewing wastewater to water their hops, co-ops with a local farmer to use the spent grain for food for the cattle and has planted 1,100 trees on the farm to help with erosion and air quality. Stable Craft Brewing also has its own chickens for eggs and grows their own herbs and supports their local farmers at every possible opportunity. Stable Craft also collects rain water from the roofs of their multiple barns and buildings which collects to a “living pond” which has no other source of natural water. This pond has fish, frogs, turtles and vegetation to support the ecosystem. Other water that is wasted from the brewing process is harvested and directed to their hop plants and paddocks to water the fields during drought stress. A paralysis furnace has been built in Stable Craft’s greenhouse to create biochar. This char is also used in their compost mix to help retain nutrients between watering and adding carbon to the soil. The char is derived from broken pallets, sticks from storm damaged landscaping and manure. The char process also heats a 300 gallon water tank in the green house with minimal use of wood. That tank emits the heat over several hours throughout the coldest periods to prevent use from using fossil fuels, electricity and excessive amounts of wood. The brewing process, the boil kettle steam vent is piped to the greenhouse, a rheostatic controlled fan and dampers allows the brewery to draw that heat and moisture through the greenhouse as desired during critical cold periods. Co2 collected in kegs is purged through hoses and released into the greenhouse, again using rheostatic fans to maintain safety during “lock outs” while purging CO2. The brewery has also found the Bokashi “tea” used in the brewery drains eliminates any odors from residual grains aka trub that may stick to the pipes. 2021 brought forward the execution of ideas to fruition amongst the challenges presented of operating a hospitality and manufacturing business during covid. The complement of Bokashi, the paralysis furnace, energy use reduction, water conservation both from the sky and the ground all contribute to Stable Craft Brewing’s employee retention and attracting their guests to connect to their process while experiencing and honoring an authentic farm brewery and cidery. In 2022, Stable Craft intends to install an insulated 100 gallon tank in their guest forward areas to eliminate single use bottle water. provide green earth corn plastic cups with chilled potable water in a unique experience that connects their guests to the reality of an operation on a mostly off grid operation. The goal is to have an intuitive experience which will be an unexpected educational opportunity when you simply want a glass of water.

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